Before the

Federal Communications Commission Washington, D.C. 20554

In the Matter of Interoperability Showing for the Adams County Communication Center, Adams County, Colorado, for the development of a 700MHz Public Safety Broadband Network)	PS Docket No. 06-229
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I. Summary

On October 12, 2011, the Chief of the Public Safety and Homeland Security Bureau submitted a letter ("FCC Letter") to the State of Texas ("Texas") regarding specific issues surrounding the implementation of their 700 MHz LTE public safety network. On November 7, 2011, on behalf of the State of Texas, Michael Simpson, Chief of Interoperable Communications submitted a response ("Texas Response") to the letter stating the position and thoughts of the State of Texas.

These comments are in response to the Texas Response and constitute the positions and beliefs of the Adams County Communication Center, Inc. (ADCOM 911), existing waiver recipient and early deployer.

For these comments, ADCOM 911 will identify the general topic within the Texas Response and respond with its own comments.

II. Comments

PLMNID, IMSI and Other Network Identifier Allocation and Coordination

ADCOM 911 is in concurrence with Texas that a single PLMN ID, combined with a comprehensive, fairly distributed numbering scheme appears to be the optimum solution for all local, regional and potentially national public safety LTE networks at this time. ADCOM 911 believes the proposal set-forward by Texas presents a well thought out option and provides a good starting point for further discussions.

While we believe the Texas proposal is a solid starting point, we also believe the schedule proposed for adopting a final numbering scheme is too aggressive. In addition to the proposal by Texas, the Public Safety Communications Research ("PSCR") program is currently developing a potential identification scheme, which they will present to the current waiver recipients on November 30th and December 1st of this year.

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ADCOM 911 believes both proposals should serve as a starting point for a larger, indepth conversation and process undertaken by the waiver recipients and other groups associated with the early deployment of the public safety LTE network to establish a final allocation scheme. ADCOM 911 would hope this process could be completed during the first half of 2012 but believes achieving this goal by January of 2012 is unrealistic.

Regarding the proposed entity to coordinate these efforts and to maintain the PLMNID, ADCOM 911 believes more thought should be given to Texas' proposal that the Public Safety Spectrum Trust ("PSST") be the interim entity to manage this process. While we see the rationale behind this recommendation, we understand there are several legal and regulatory issues that may affect this decision. Additionally, we believe further conversation surrounding the long-term stewardship needs to take place. While the cost estimates developed by Texas show forethought, at this point, it is impossible to place an accurate cost estimate on their proposal thus requiring Waiver Recipients to commit to a potentially open-ended structure. ADCOM 911 would argue the potential cost of this proposal would likely far outweigh any costs associated with reprogramming network assets to migrate from a temporary solution to the final structure. ADCOM 911 believes the current waiver recipients should play a key role in any entity tasked with developing and adopting the numbering scheme.

ADCOM 911 understands that some waiver recipients will be moving their networks into production in the near future. If these networks are live before a final solution is developed, ADCOM 911 would propose that a temporary solution for either/or the PLMN ID and numbering schemes be implemented until the final architecture is adopted. We understand this may cause early deployments to reprogram hardware within their system but the availability of over-the-air programming in the 3GPP standard should minimize the cost and burden of this task. ADCOM 911 has already installed its Evolved Packet Core ("EPC") and will start installing eNodeB sites in February so it is sensitive to the issues surrounding early implementations. While we believe having a final solution in the next few months is optimal, as stated, we believe this issue is far too important to the future of the overall network to rush.

Interoperability

In an effort to clarify ADCOM 911's position regarding interoperability between public safety networks as an early builder, we agree with Texas' comment that the primary focus of the initial deployments should be meeting the needs of the first responders within the network coverage area. That said, ADCOM 911 fully expects to have the technical capability to be interoperable when it meets the FCC criteria of a live system. In order to capitalize on this technical ability for basic interoperability between initial public safety networks (Texas, Charlotte, Adams County, others), we believe two key issues must be addressed.

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- Interconnectivity between the unique HSS components. ADCOM 911 believes the only way to accomplish this connectivity in the short term is to establish a Virtual Private Network ("VPN") connection over the public Internet between the individual networks. As the national architecture takes shape we would highly encourage a more comprehensive solution be put in place to ensure the full capabilities of interoperability are realized and the security required is established. On a temporary basis however, for the initial LTE deployments, the VPN solution offers both a direct cost and labor efficient solution as all agencies have existing firewall architectures and Internet access. With limited deployments, the amount of data required to pass through these connections will be minimal and the VPN should provide the necessesary security for early deployments.
- 2. **Agreements between network operators.** In order to establish interoperability, operating agreements between the network operators must be developed to establish the operational and policy guidelines. Due to the fact that we will be dealing with multiple levels of state and local government, there could be delays in formulating these agreements. We believe these initial agreements should be streamlined agreements that simply allow for basic roaming for first responders. Since roaming between these networks will be initially unlikely, complex issues such as billing can be addressed further as roaming becomes more prevalent.

ADCOM 911 would recommend the FCC establish this basic, inexpensive framework, as a minimum baseline for interoperability that must be met by all initial deployments. This will allow the waiver recipients to prove roaming works from a technical perspective while minimizing the effort and cost to the early deployments. With this approach, there will be no initial need for a clearinghouse or other external assistance to manage the roaming between networks. Additionally, it will provide the required time to develop a long-term, comprehensive approach to roaming that can be implemented for all networks.

Regarding long-term interoperability, ADCOM 911 believes the following questions must be addressed before requiring and implementing a long-term interoperability solution.

- 1. Generic template for roaming between networks
- 2. An independent entity to manage the logistical data requirements for interoperability.
- 3. Complete understanding of the costs associated to implement and maintain interoperability.

III. Summary

In closing, we feel the work put forward by Texas and all Waiver Recipients has been well thought out and beneficial for all entities involved. We have made significant progress on several key issues and ADCOM 911 hopes this progress will continue. However, we do

believe the issues addressed in the FCC Letter are complex and must be addressed in a comprehensive fashion. We believe the FCC can facilitate these efforts by making minor adjustments to the Waiver Recipients that allows for interim or temporary solutions that minimize the exposure of those entities that are the first to deploy their networks. ADCOM 911 hopes the upcoming workshop hosted by the PSCR can provide the opportunity for direct conversation between the stakeholders that will lead to a clear path towards both an interim and long-term solution to these issues.